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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/738,441

12/17/2003

Kenneth A. Epstein

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EXAMINER

CRANSON JR, JAMES W

ART UNIT

PAPER NUMBER

2875

DATE MAILED: 06/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/738,441

Applicant(s)

EPSTEIN ET AL.

Examiner

James W. Cranson

Art Unit

2875

*(Handwritten initials)*

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 06 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) 2-9, 13-26 and 30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 15/1, 15/2/1, 27, 31-33 is/are rejected.
- 7) ☒ Claim(s) 15/10/1, 15/11/1, 15/12/1 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 4/14/05.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Election/Restrictions***

In response to the Examiner's office action dated April 4, 2005, Applicants provisionally elected species XIV described by Figure 18, added claims 31-33 that are directed to the elected species and canceled claims 23-26 and 30.

Claim 15/3/1 is from a claim group of a non-elected species and will not be examined on merits.

Claim 15/5/4 depends from non-elected claim 4 and therefore will not be examined on the merits.

### ***Response to Arguments***

Applicant's arguments, see amendment, filed 5/6/05, with respect to "no claim is considered to be generic" have been fully considered and are persuasive. Examiner has reconsidered and agrees that 1, 15 and 27 are generic.

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The following claims have been rejected in light of the specification, but rendered the broadest interpretation [MPEP 2111]. Applicant should positively cite the structural limitations to be given full patentable weight within an apparatus claim.

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### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 15/1, 15/2/1 and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by USPN 6,464,366 to Lin et al.

Lin et al. discloses an illumination device including light guide with input area, 1<sup>st</sup> and 2<sup>nd</sup> opposing surfaces between which light propagates, light extraction means near the input area of the light guide that extracts more light in direction toward the input area (illustrated in figures 3A and 3B).

Regarding claims 1, 15/1 and 27:

A light guide (30), comprising:

a light input area (31) through which light is introduced into the light guide (30); and first (fig1A) and second (fig1A) opposing surfaces between which light introduced into the light guide (30) propagates (column 5, lines 20-25), wherein a portion of the light guide near the light input area ( also in fig 1A) has extraction structures (40, 41) configured and arranged to extract more light out of the light guide when light is propagating in the light guide in a direction toward the light input area than when light is propagating in the direction away from the light input area (figs 3A,3B, column 6, lines 27 –37).

Regarding claim 15/2/1, according to claim 1, wherein some of extraction structures are shadowed from light introduced from the light input area (illustrated in figs 3A,3B).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2875

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Regarding claims 31, according to claim 1, claim 32, according to claim 27 and claim 33 according to claims 31 or 32: wherein light guide has plural input areas, extraction structures near input areas so that more light is extracted out of the light guide when light is propagating in a direction toward the light input area.

Claims 31-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,461,547 to Ciupke et al. in view of USPN 6,464,366 to Lin et al.

Ciupke discloses and illustrates in figure 4 a light guide with two or more light input areas with light extraction means near the light input areas.

Ciupke does not disclose that more light is extracted out of the light guide when light is propagating in a direction toward the light input area.

Lin et al. teaches an illumination device including light guide with input area, 1<sup>st</sup> and 2<sup>nd</sup> opposing surfaces between which light propagates, light extraction means near the input area of the light guide that extracts more light in direction toward the input area (illustrated in figures 3A and 3B). It would have been obvious to one of ordinary skill

in the art at the time of invention to incorporate the teaching of Lin in Ciupke and have more light removed when propagating in a direction toward the light input area. The reason as stated by Lin (column 6, lines 26-31) is that “intensity uniformity at an illumination area close to the light guide input area can be improved by blocking high intensity light rays from hitting the light-extracting immediately”.

***Allowable Subject Matter***

Claims 15/10/1, 15/11/1 and 15/12/1 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: Claim 15/10/1, further comprises additional structures disposed on at least one of the first and second opposing surfaces, and additional structures being configured and arranged to control angular direction of light extracted in a direction substantially orthogonal to a principal axis of the extraction structures. This combination of limitations is not found or taught in the art of record.

Claims 15/11/1 and 15/12/1 depend from claim 15/10/1 and would be allowable for the same reasons.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James W. Cranson whose telephone number is 571-272-2368. The examiner can normally be reached on Mon-Fri 8:30A.M.- 5:00P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandy O'Shea can be reached on 571-272-2378. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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**THOMAS M. SEMBER**  
**PRIMARY EXAMINER**